

# Ripped from the ROUNDUP

*Ripped straight from the pages of old Space News Roundups, here's what happened at JSC on this date:*

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**T**he five science instruments to fly aboard the Edwin P. Hubble Space Telescope have completed acceptance testing at NASA's Goddard Space Flight Center in Greenbelt, MD.

The acceptance represents completion of the most critical of the final checkout steps for the instruments before they are assembled aboard the observatory.

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**V**oyager 2, a 12-year veteran of three planets and 39 moons, has parted the curtains for its final hurrah 2.7 billion miles from Earth.

On Monday, the spacecraft began the 125-day observatory phase of its encounter with Neptune, at present the most distant planet from the sun. Voyager 2 is now regularly snapping about 50 photographs of Neptune a day as it steadily looms larger. The probe has assumed center stage among spacecraft being tracked by NASA's Deep Space Network, at the top of that network's priority list. Its final bow will come on August 24 when it dips to within 3,000 miles of Neptune's clouds and then passes 24,000 miles from Triton, Neptune's major moon.

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**P**reparations of *Columbia* for an early July launch on STS-65 have gone so smoothly the oldest shuttle was rolled over to KSC's Vehicle Assembly Bldg. slightly ahead of schedule Wednesday.

*Columbia* will be hoisted vertical and attached to the solid rockets and fuel tank, then moved to Launch Pad 39A Wednesday after a week of work in the VAB.

On June 21, the STS-65 crew – Commander Bob Cabana; Pilot Jim Halsell; Payload Commander Rick Hieb; Mission Specialists Leroy Chiao, Don Thomas and Carl Walz; and Japanese Payload Specialist Chiaki Mukai – will travel to KSC to take part in a dress rehearsal launch countdown aboard *Columbia*.



KSC Railroad Engine #2, a GM EMD MP15, hauls a set of 10 Gaseous Helium Transport Cars east of Launch Pad 39A on May 19, 1998, where the Space Shuttle *Discovery* awaits liftoff for its STS-91 mission.

## Gulf Coast Railroad Museum acquires unique piece of space history

**V**isitors to the Gulf Coast Railroad Museum in Houston will get a chance to see a unique piece of American railroad and aerospace history: a Gaseous Helium Transport Car (GHTC) that was once used at the Kennedy Space Center.

The vision of preserving the GHTC, one of about 130 tank cars used until April of last year at KSC, was that of astronaut and rail fan Mario Runco, who worked with officials of the Bureau of Land Management who owned the cars, KSC, the museum, and two railroads, Union Pacific and Burlington Northern Santa Fe, to secure it and have it transported to the museum. Almost a year to the day later from the start of this project, the GHTC arrived in Houston and is now on display.

KSC operates a railway system that stages materials on site at KSC for use on the space shuttle. The primary items transported by the KSC Railroad are the solid rocket booster segments which are shipped by rail from Utah. The booster segment cars are delivered to a rail yard just north of KSC. From there, the KSC Railroad picks up the cars and delivers them to the Rotation Processing and Storage Facility for initial processing before they are ultimately delivered to the Vehicle Assembly Bldg. for booster stacking.

For many years, the KSC Railroad would also pick up the helium cars that were delivered to the same rail yard. The tank cars were used to transport helium in gaseous form at 3,800 psi from the site of the nation's major helium production facility owned and operated by the BLM in Amarillo, Texas, to Florida. Helium is used on the shuttle's main engines for safing purges and valve actuation and on the shuttle's Orbital Maneuvering System engines for propellant tank pressurization.

The KSC Railroad would stage the tank cars at the Helium Compression Facility located near Launch Pads 39A and B where the gas was offloaded and compressed to the required 6,000 psi.

From there, the gas is sent via pipeline to the launch pads. As the cars were emptied, they were sent back to Amarillo to be refilled; however, in the government's effort to privatize helium operations, the BLM would find itself out of the helium business and would no longer have need of its fleet of GHTCs.

With the closing of the BLM helium operation and as a cost-saving measure, a decision was made to have helium

"I thought that having one of these helium transport cars donated to a museum would help preserve a unique piece of American railroad history especially in light of the cars' service within the nation's space program," said Runco.

With the help of KSC Director Roy Bridges, KSC Logistics and High Pressure Propellants Engineer Tom Elam, KSC Railroad Supervisor Harold Tucker, Gulf Coast Railroad Museum Director



*“We at the museum are thrilled to help preserve this unique historical car. It adds a piece to our quest to educate the public on railroad history and preservation.”*  
– David Taveirne

Astronaut Mario Runco Jr. and Gulf Coast Railroad Museum Director David Taveirne climb aboard the recently acquired Gaseous Helium Transport Car (MHAX 1237) at the Gulf Coast Railroad Museum.

delivered to KSC in liquid form. The Helium Compression Facility at KSC was subsequently modified to accommodate liquid helium and is

now known as the Helium Conversion and Compression Facility. Since April of last year, liquid helium has been delivered there by tanker truck instead of in the gaseous state by rail. One liquid tanker truck, about 11,000 gallons, is equivalent to about four GHTCs or six over-the-road gaseous trailers, about 1 million standard cubic feet.

KSC has retained about 40 GHTCs for space shuttle use and to transport gaseous helium from the HCCF to Cape Canaveral Air Force Station's Titan launch complex for similar use on Titan rockets. The rest of the cars were sent back to Amarillo where they were destined to be sold for scrap and cut up.

David Taveirne, BLM Helium Operations Managers Tim Spisak and Bob Jackson, BNSF Amarillo Trainmaster Ross Hayward and Union Pacific's Administration Manager Elaine Myers, Southern Region Vice President Steve Barkley, Train Operations Manager Bill Forsythe and Customer Service Manager Larry Lake, Runco was able to have one of the cars transported to Houston and placed on permanent loan to the museum.

The Gulf Coast Railroad Museum is located at 7390 Mesa Drive off the northeast corner of the I-610 Loop. From the I-610 Loop, take U.S. 90 (McCarty) east about 1 mile to Mesa Drive. Turning left onto Mesa Drive and going about 1 mile will get you to the museum which is located on the right side of the street just past the Railroad sign. The museum is open weekends throughout the summer from 11 a.m. to 4 p.m. on Saturdays and from 1 p.m. to 4 p.m. on Sundays. ■

